MARINE MAMMAL ENTANGLEMENT
(MME) WORKING GROUP
Perot Systems – 10:00 AM to 4:30 PM
December 10, 2003

MEETING #1 SUMMARY

***I. AGREEMENTS*:**

- One alternate will be permitted per WG seat. Alternate names and contact information will be forwarded to the Chair (Regina Asmutis) or the Team Lead (David Wiley) before the next meeting January 7, 2004.
- For the purpose of addressing entanglement issues, commercial fishing gear entanglement will be prioritized over marine debris.
- The WG agreed that marine mammal entanglements are occurring within the SBNMS.
- Other than by direct observation, there is no way to determine when or where a whale entanglement took place. Current evidence is based on the degree of abrasion on the entangled whale, the depth of cuts, and the amount of scarring observed on individual whales.
- The WG agreed that the evidence presented indicates that the categories of potential consequences of a whale becoming entangled in fishing gear are 1) mortality, 2) serious injury, 3) minor injury, 4) reduced reproductive success, and 5) no impact.
- A major factor in entanglement risk is the level of co-occurrence of whales and fixed fishing gear.
- Current projected rates of entanglement are cause for concern. In the short term, without additional management measures, entanglement risk from lobster gear would be expected to increase, and the risk from gillnet gear to decrease (based on current fishery effort). In the long term, however, recovery of groundfish stocks could lead to increased gillnet effort and, therefore, increase risk from this fishery.
- The future meeting schedule for the MME WG is agreed as summarized below. Since some members serve on more than one WG, Wednesdays were selected as meeting dates so as not to conflict with the schedules of other WGs.

Meeting #	Date	Location
2	January 7, 2004	Plymouth Public Library, Plymouth
3	February 11, 2004	TBD
4	March 10, 2004	TBD
5	March 31, 2004	TBD

- The tentative outline for future meetings is as follows:

Jan 7th	AM – Presentations by Trap and Gillnet Fisheries
	PM – Prepare Action Plan for Aiding Disentanglement
Feb 11th	AM – Finish Action Plan for Trap Fisheries
	PM – Action Plan for Disentanglement Efforts
Mar 10th	Action Plan for Gillnet Fishery
Mar 31st	All Day – Summary Meeting

II. RECOMMENDATIONS: No recommendations were agreed to during the first MME WG meeting.

III. ACTION ITEMS:

ACTION ITEM 1: M. Rossman (NMFS) will look into the possibility of presenting at a future meeting of the WG, seabird, sea turtle, and seal entanglement data (and possibly other species as well, e.g. Cetaceans, Pinnipeds, Odontocetes) collected from within, and from the general vicinity of, SBNMS. Pat Fiorelli (NEFMC)

ACTION ITEM 2: David Wiley will contact the National Fish & Wildlife Service for technical advisor support (also National Seabird Bi-catch Advisory)

ACTION ITEM 3: Add to future agenda whale watch standby requirements. A separate meeting is needed to include whale watch companies to discuss this issue. Dave Morin (CCS) will provide a data summary of entanglement events to include standby statistics and whales lost due to no standby (see action item below).

ACTION ITEM 4: Dave Morin (CCS) will provide the WG with the following information:

- Statistics about the amount of time it takes from receiving a report of an entangled whale until the disentanglement team arrives at the entanglement site.
- Statistics about the number of entanglements that have been recorded from within the boundary of SBNMS.
- Statistics about the number of entanglements that have been recorded from the vicinity if the Sanctuary.
- Statistics about the number of reported entanglements that were located by the disentanglement team; the number of successful disentanglements; and the number of whales that survived entanglement.
- The number of animals lost due to no vessel standing by until the disentanglement team arrives.
- A summary of who reports entanglements.

ACTION ITEM 5: Pat Fiorelli (NEFMC) will provide the WG with an overlay of rolling fishing enclosures over entanglement sites, and also within time periods related to the opening of fishing seasons and/or regulated fishing areas.

ACTION ITEM 6: Diana Borggaard (NMFS/PR) will 1) assemble information on areas of rolling closures, and 2) trap reports with locations of set gear numbers from gillnet gear versus trap gear, in part, to answer the question: Were there more that average gillnets this year than in past years?

ACTION ITEM 7: David Wiley (SBNMS) will investigate VTR data on distribution of fishing gear over various years.

ACTION ITEM 8: David Wiley (SBNMS) will contact Michael Moore about whale immune response due to entanglement.

ACTION ITEM 9: D. Morin, M. Weinrich, J. Robbins, and L. Conger will forward to Just Moller at SBNMS, a summary of their presentations, and a copy of their PowerPoint slides, for inclusion in meeting minutes.

MARINE MAMMAL ENTANGLEMENT

Working Group Attendees

NAME	WG SEAT and AFFILIATION
Regina Asmutis	Chair - IWC
Dave Wiley	Team Lead; SBNMS
Dave Morin	Conservation; Center for Coastal Studies
Sharon Young	Conservation; Humane Society of the U.S.
Nina Young	Conservation; Ocean Conservancy
Jennifer Kennedy	Conservation; Blue Ocean Society
Edward Lyman	State; MA Dept. of Marine Fisheries
Diane Borggaard	NMFS; NMFS PR
Marjorie Rossman	NMFS; NEFSC
Pat Fiorelli	Council; NEFMC
Lisa Conger	Science; NEAq Right Whale Program
Tom French	Science; MA Dept. of Marine Fisheries
TBA	Gear Specialist

Technical Advisor(s)

Mason Weinrich	Whale Center of New England
Jooke Robbins	Center for Coastal Studies
Greg Hitchen	USCG (Not Present)
Joe Green	NMFS (Not Present)
Kathleen Dolan	MAEP (Not Present)
Gary Ostrum	MA Lobsterman's Association (Not Present)

Working Group Members Not Present

Ronnie Hunter	Whale Watching; Capt. John Boats
William Bartlett	Commercial Fishing (Trap); MA. Lobster Association
Todd Jesse	Commercial Fishing (Trap); South Shore Lobsterman's Association
Stephen Welch	Commercial Fishing (Gillnet); Groundfish and Monkfish Advisor, NEFMC/Gillnet Fisherman
Dave Maciono	Commercial Fishing (Gillnet); Gillnet Fisherman
John Pappalardo	Commercial Fishing (Longline); Cape Cod Hook Fisherman

Others Present

Craig McDonald	Superintendent, SBNMS
Kate Van Dine	MPR Project Manager, SBNMS
Just C. Moller	GIS Research Analyst, SBNMS (Rapporteur)

WELCOME AND INTRODUCTIONS

Regina Asmutis (Chair) opened the meeting at 10:10 AM and Craig MacDonald, SBNMS Superintendent, welcomed all members of the Marine Mammal Entanglement working group and thanked them for their support and participation in the MPR process.

STATUS OF THE MANAGEMENT PLAN REVIEW

David Wiley (Team Lead) gave a presentation that provided the Marine Mammal Entanglement Working Group (MME WG) members with a summary of the Stellwagen Bank National Marine Sanctuary (SBNMS) Master Plan Review (MPR) process (see attached flow chart at the end of this document). The National Marine Sanctuary Act (NMSA) requires management plans for all sanctuaries that must be revised every five years. The management plans identify goals and objectives, and create long-term strategies for addressing Sanctuary needs. Strategies include setting priorities, management actions, research and education needs, performance measures, etc. for achieving the meaning and intent of the NMSA.

The WG is a body of technical experts and stakeholders who will deliberate on key sanctuary issues derived from scoping meetings related to marine mammal entanglement in commercial fishing gear, and to make recommendations to the Sanctuary Advisory Committee (SAC) concerning those issues. The SBNMS SAC consists of 21 people (members and ex-officios) representing the region's diverse interest groups. The SAC, in turn, makes recommendations to the Sanctuary Superintendent. The goal of the MME WG is the formulation of an Action Plan to address the issue of marine mammal/fishing gear entanglement within the Sanctuary.

The responsibilities of the MME WG members include helping the Sanctuary implement its mandate of ecosystem protection and natural resource management, while allowing compatible human uses. As the only National Marine Sanctuary in New England, the Stellwagen Bank Sanctuary is a model for management and research throughout the region. The members' ultimate objective is the shaping of an Action Plan (AP) that accurately characterizes the issues and problems related to marine mammal entanglement, and to identify strategies and activities to address possible solutions ranging from research and education to modified or new regulations.

- The WG members operate under the purview of the Sanctuary Advisory Council. Members were chosen from over 400 nominations representing ~190 individuals on 12 WGs. Working group members represent constituents, and in that capacity serve as conduits for an information exchange from their constituents to WG discussions. The public is invited to participate as observers, but is not permitted to speak directly to the working group. Instead they must convey their concerns through one of the WG members. Individual roles and responsibilities of the various WG representatives include:

- The *Chair*, a member of the SAC, is the WG meeting administrator and facilitator. The Chair solicits the interests and concerns of the WG, assures that all voices are heard, and guides the fairness of the process. If the Chair has an interest that has not been voiced through another member, she must recuse herself from her position as Chair before speaking to her particular interest.
- The *Team Lead* (SBNMS staff) role is to work closely with the chair to guide an equitable process and to serve as logistics support including providing background material, agenda, minutes, etc. He participates in the process as a stakeholder providing advice on the National Marine Sanctuary Program's (NMSP) position, views and policies.
- The *Working Group* is made up of a diverse group of individuals chosen because of their ability to represent diverse points of view, and their knowledge of regional marine resources and management issues. As important is the discussion that occurs between members of the working group and the constituents they represent. The members will be the only voice for their constituents during the WG process.
- *Alternates* for members can be appointed. Appointment of Alternates is a decision of the WG.
- *Technical Advisors* are individuals with expertise related to the marine mammal entanglement issue. Advisors are encouraged to make recommendations and participate in discussions but may not participate in WG decisions.

Working Group will meet once a month for five to six months. Decisions will be made by mutual agreement, and members will work toward decisions as a group with the goal of achieving general agreement. If agreement cannot be reached on a particular issue or problem, the WG has the option of forwarding a suite of recommendations and associated rationales to the SAC, but these might be less influential to the MPR process than unanimous recommendations. If individual members cannot agree on an issue or problem resolution supported by the majority, the member must demonstrate the importance of that issue or problem and provide a written rationale for subsequent consideration by the SAC and/or the Sanctuary Superintendent.

In the event of significant disagreements, the working group will work in consultation with a facilitator.

In response to David Wiley's presentation the following questions were asked:

Q. *What is the incentive for finding agreement, and what is the process that the WG should follow if they cannot find agreement on an issue or problem*?

A. *If the WG cannot come to agreement the issue will be forwarded to the SAC. If the SAC cannot resolve the issue the Sanctuary Superintendent will seek a solution that is compatible with the Sanctuary's mandate.*

Q. *Are there specific uses that are guaranteed under the Marine Sanctuary Act*?

A. *There are no guaranteed uses. Although the Sanctuary will not take unilateral action, a process is available through a number of Federal administrative structures (NMFS, Fisheries Council, etc.) to resolve an issue.*

Following David Wiley's presentation, Regina Asmutis (Chair) provided the WG with a preliminary Goal Statement that was debated and revised. The final version is reported in the '*Summary and Next Steps*' section below. The meeting then continued with a series of informational presentations to provide the WG members with a 'status report' about the current knowledge and data related to marine mammal entanglement with commercial fishing gear.

HISTORY OF BALEEN WHALE ENTANGLEMENT (Focus on the SBNMS and Surrounding Waters)
Presentation by Dave Morin, Assistant Director of the Rescue Program at the Center for Coastal Studies
Dave Morin described the Atlantic Large Whale Disentanglement Network and the five (5) levels of training required for those working with entangled whales. Locating a whale quickly after an initial report of entanglement, and standing by until the entanglement team arrives, is critical for success. Information about the network, entanglement statistics, and training is available at http://www.coastalstudies.org/entangle.

Entanglement of large whales has been shown to be a significant problem facing the recovery of many large marine mammals, primarily humpback and right whales, throughout the Gulf of Maine. The Stellwagen Bank Sanctuary is a favorite whale watching location because of its distinct bottom topography that provides an ideal environment for primary food items for large whales. Since whale-watching vessels are dedicated platforms for observation, a large number of entanglement reports come from the Sanctuary boundaries. These entanglement reports, while important, do not indicate where the whale was entangled, rather where the entangled whale was first seen. Nonetheless, Sanctuary reports have been an integral part of disentanglement success.

Since 1997, entanglement reports have continued to increase and the Center for Coastal Studies, with support from the National Marine Fisheries Service, developed a volunteer network of fisherman, biologists and marine professionals called the Atlantic Large Whale Disentanglement Network. These trained volunteers provide support for events through standing by, assessing, documenting and assisting the primary disentanglement team as necessary.

Most network members because of their volunteer status can only provide basic support such as standing by and documenting. However, this support should not be underestimated. Documentation is critical to the overall success of the disentanglement and provides valuable information for future management decisions. Standing by an entanglement, while the primary team in en route is an often-overlooked step in a disentanglement response. Entangled whales, once lost are almost never found again. For example, a whale lost for 20 minutes (traveling at an average speed of 3 knots) will require a search area of 4 square miles to locate. At one hour – 36 square miles; at two hours – 144 square miles (roughly one/sixth of the Sanctuary!)

A key issue is how to get people to an entanglement site and stay there until an entanglement team arrives. This can be as long as 3 to 4 hours depending on the location of the entangled whale and weather conditions. Mutually agreed to, and ideally mandated, entanglement reporting and vessel standby protocols are needed, e.g.

for whale watching companies, for SBNMS, and for the general marine community. It was suggested that protocols be instituted requiring that certain official vessels (SBNMS, MEP, etc.) report to the Center for Coastal Studies when they will be in, or in the vicinity of the Sanctuary. Ideally, the Sanctuary would help the Network by having a Sanctuary vessel patrolling the area during the peak whale season, and to stand by for entanglement reports, and that all whale watching vessels be mandated to stand by an entangled whale for a minimum of 45 minutes.

Q. Is there any data available that indicate how long a whale can remain entangled and still survive?

A. No data to date have provided clear trends. Some whales that have been minimally affected by entanglement have died within 2 – 3 days. Others that have been severely entangled and/or wounded by multiple deep cuts have survived.

Due to their size, the high mortality rate of Minke whales may be due to drowning as opposed to wounds suffered from fishing gear entanglement. Dead Minke whales are often found with their stomachs full of food suggesting that they were feeding at the time of entanglement and were then not able to surface. Also, entanglement is not always reported as the cause when whales are found dead, even though entanglement may be the cause. It was recommended that a review assessment process be instituted to ensure that Minke mortality and large whale cause of death is accurately established and reported. The data being collected within the SBNMS is a 'window' into the more widespread issue of whale entanglement in fishing gear. It was recommended that data collection should continue not only from within the Sanctuary, but also from a buffer zone around the Sanctuary.

EVIDENCE OF WHALES BECOMING ENTANGLED IN THE SBNMS
Presentation by Mason Weinrich, Whale Center of New England

Mason Weinrich's presentation provided a summary of a number of whale entanglement case studies from within SBNMS.

Evidence was presented that humpback whales become entangled in gill nets on Stellwagen Bank. Five cases were presented. In one, a placid humpback whale in 1997 was seen to suddenly thrash and charge; upon approach, we found the animal badly entangled in a gill net. Three cases were presented from northern Stellwagen Bank in the summer of 1990, which were coincident with an increase presence of sand shark gill nets. In one case, the gear on the whale identified the vessel of origin; the fisherman later confirmed the gear had been set in the area. The animal had been seen the previous afternoon free of gear. Finally, in April 1986, a juvenile humpback was being observed when it became entangled in a bottom set gill net; the animal was seen to thrash consistently at first, then sporadically for the next 90 minutes. Entanglements appeared to be in active fishing gear and, in four (4) cases, in bottom set gill net gear. Three entanglements involved gear going through the animal's mouth, indicating the whales were deep feeding when they became entangled. Finally, the rolling and thrashing seen after entanglement may further entangle the whale, and may limit the effectiveness of weak links in allowing the whale to free itself.

Q. Is the 'bark' rate that was recorded during an entanglement event an indication of the length of time a whale has been entangled?
A. It is hard to determine with the limited amount of existing data. Also, abrasion marks from entangled gear does not appear to be a good indication of the length of time a whale has been entangled. However, the 'bark' elicited by an entangled whale is more intriguing as a unique sound that may relate to the entanglement event. It has not been heard in other contexts.

Q. Have other stressor sounds from whales been observed, e.g. as a result of vessel harassment, a ship strike, etc?

A. Yes, unique sounds have been recorded related to persistent vessel proximity.

Q. Is the notion of 'bouts of frequent agitated behavior, then calm' a regular pattern, i.e. occurring with regular frequency and intensity at the beginning of an entanglement event, then reducing in frequency and intensity with time, a regular pattern that can provide an indication of how long a whale has been entangled?

A. Not with the limited data currently available. Most of the time on board the standby vessel is used to observe the entangled whale, with little time available to deploy a hydrophone to record concurrent sounds.

It is hard to draw conclusive conclusions about the meaning of specific sounds, patterns, or the frequency that they occur.

TRENDS AND POTENTIAL IMPACTS OF ENTANGLEMENT ON HUMPBACK WHALES
Presentation by Jooke Robbins, Center for Coastal Studies
The objective of the study is to estimate the number of entanglement events that occur within the Gulf of Maine (GOM) based on the history of scarring observed on the whale peduncle region of the tail.

Entanglement in fishing gear is a serious source of large whale injury and mortality. Unfortunately, biases in event detection and reporting make it difficult to determine the portion of the population affected and to track changes in entanglement rates over time. The tail/caudal peduncle is a useful indicator of humpback whale entanglement status because it is commonly implicated in entanglements, retains diagnostic scars and is consistently presented during the terminal dive. Since 1997, 467 unique Gulf of Maine humpback whales have been examined for wrapping scars, notches and tissue damage observed in documented events. Approximately half (48-65%) of the animals sampled annually exhibited scarring indicative of a previous entanglement. Of these, 8-25% obtained their injuries within the previous year, and 1-3% of those injuries were severe. Only 3% were known to correspond to reported entanglement events. Scars acquired during the study period resulted from no fewer than 62 entanglement events, while acquisition rates suggest that at least that many individuals become entangled each year in the overall population. There is presently no reliable estimate of the number of animals that die annually from entanglement. However, mature females exhibiting high probability scarring produced significantly fewer calves than females with no evidence of a prior entanglement. Based on these results, humpback whale entanglements are common and even non-lethal events may have serious implications. Given the low rate at which entanglements appear to be witnessed and reported, disentanglement alone is not a suitable solution to this problem. Carcass recovery of dead whales in very important. It is recommended that assistance be provided to ensure that carcasses are collected even when there is no outward evidence of entanglement or ship strike.

Q. What should the WG recommend to the SAC regarding this issue?

A. Jooke Robbins replied that the group should promote and support research focusing on indicators of chronic stress in humpbacks. R. Rolland (NEAq) is looking at the corticoid steroid level in fecal collections. This approach to measuring stress levels in large whales is new and funding is currently being pursued to research this method.

TRENDS AND POTENTIAL IMPACTS OF ENTANGLEMENT ON RIGHT WHALES
Presentation by Lisa Conger, New England Aquarium

Lisa Conger presented a NEAq study of trends and possible impacts of 22 years of Right Whale entanglement data, and an assessment of gear types and their frequency of involvement in entanglement events. A summary of her presentation is attached at the end of the meeting notes.

Q. Is decreased calving due to entanglement?

A. The effect of entanglement on calving rates is unknown based on current data. However, fewer calves are born from females with a likelihood of previous entanglement. These results will hopefully be confirmed by hormone-based pregnancy studies.

Q. Is there a relationship between a whale's food supply and entanglements?

A. There may be some correlation between a targeted food source and entanglement. For example, Humpback, Finback and Minke whales target fish while Right Whales do not. Fishing gear and whales targeting the same fish likely increases the risk of entanglement.

SPATIAL DISTRIBUTION OF FIXED FISHING GEAR AND BALEEN WHALES
Presentation by David Wiley, Research Coordinator, SBNMS

David Wiley presented the results of a year-long study designed, in part, to identify use areas within the Sanctuary where a high potential of fishing gear and whale interaction occur. The study developed an index of Relative Interaction Potential (RIP) to identify where baleen whales might become entangled in fishing gear.

The RIP analysis identified a number of areas that stood out in terms of entanglement risk, which varied with season.

The Stellwagen Bank National Marine Sanctuary (SBNMS) is a 2,181 km_ marine protected area located in the southwest Gulf of Maine. The area is heavily used by baleen whales, trap fisheries and gillnet fisheries, and entangled whales are frequently reported. From July 2001 through June 2002, we conducted monthly surveys along track lines that bisected the sanctuary at 5 km intervals. Sightings data were used to calculate the location of 414 baleen whales and 6,130 surface buoys that indicated the presence of subsurface fixed fishing gear. ArcView's (8.2) Kernel Density function (output raster cell size 100 m_; search radius 5000 m) was used to depict where sightings were concentrated and identify annual and seasonal areas of co-occurrence. To further investigate co-occurrence, we developed an index of Relative Interaction Potential (RIP) by creating a matrix of 5-minute grid cells that covered the SBNMS and, within each grid cell, multiplying whale sightings X buoy sightings. Cells were ranked by RIP to identify entanglement hot spots. Primary hot spots were the western side of Stellwagen Bank and southern Jefferys Ledge. To test the utility of the RIP, we plotted sightings of entangled whales relative to the RIP index. For the period July 2001-June 2002, all sightings of entangled whales from the SBNMS (n=3) occurred within or in the immediate vicinity of top-quartile cells. For the period 2000-2002, 85% (11/13) of entangled whales were found within or in the immediate vicinity of top-quartile cells. However, the tendency for the whale watching boats reporting entanglements to be found in the same areas and the ability of entangled whales to move away from the site of entanglement were confounding factors. We also attempted a preliminary quantification of the amount of line (trap fishery) and netting (gillnet fishery) that existed within the SBNMS. Conservative line estimates for the trap fishery ranged from 81 nm (June) to 300 nm (October). Netting estimates ranged from 0 (April) to 50 nm (June).

SUMMARY AND NEXT STEPS

1. Preliminary Goal Statement

The MME working group goal statement was initially proposed by the chair and then revised by members:

"To devise a framework to assess and minimize the risk of entanglement of marine mammals, sea turtles and sea birds, without unduly impacting commercial fisheries. To recommend and/or promote methods to successfully disentangle animals, foster cooperation with cross-jurisdictional partners, and educate Sanctuary users regarding those issues." The goal statement will be further evaluated at the next meeting.

2. Tentative Meeting Schedule

The WG members agreed to the following dates for future meetings. Wednesdays were selected so as not to conflict with meeting dates for other working groups that members serve on.

Meeting 2: Wednesday, January 7, 2004
Meeting 3: Wednesday, February 11, 2004
Meeting 4: Wednesday, March 10, 2004
Meeting 5: Wednesday, March 31, 2004

3. Tentative Agenda Outline for Future Meetings

Meeting 2: Jan. 7 – Presentations by Trap and Gillnet Fisheries (AM). AP for Aiding Disentanglement (PM).
Meeting 3: Feb. 11 – Action Plan for Gillnet Fisheries.
Meeting 4: Mar. 10 – Action Plan for Trap and Hagfish Fisheries and emerging issues
Meeting 5: Mar. 31 – Summary Meeting.

Management Plan Review
Marine Mammal Entanglement Working Group – Agenda

Date: 10 December 2003
Location: TPMC/Perot Systems, Scituate, MA

TIME	TOPICS AND OBJECTIVES
10:00-10:15	•**Welcome** •**Introductions** -Round Robin (Name, Affiliation, Background, and Interests) **Objective:** Familiarization with members. **Discussion Leader**: Regina Asmutis
10:15-11:15	•**Why Are We Here** - Status of the Management Plan Review - The Working Group Process - Mechanics, Responsibilities, and Decision Making - Purpose and Structure of a Action Plan - How Does the Action Plan Fit into the Draft Management Plan? **Objective**: Familiarize working group members with the management plan review process and the how's and why's of the working group. **Discussion Leader**: David Wiley
11:15-12:00	**Presentation: History of baleen whale entanglement with a focus on the SBNMS and surrounding waters** **Objective:** Familiarize working group members with baleen whale entanglements **Presenter:** David Morin, Center for Coastal Studies
12:00-12:45	• **Lunch**
12:45-1:15	**Presentation: Evidence of whales becoming entangled in the SBNMS** **Objective:** Gain additional insights from instances when whales are suspected of becoming entangled while in the SBNMS **Presenter**: Mason Weinrich, Whale Center of New England
1:15-1:45	**Presentation: Trends and potential impacts of entanglement on humpback whales** **Objective:** Familiarize working group members with trends and possible impacts of entanglement of humpback whales **Presenter**: Jooke Robbins, Center for Coastal Studies
1:45-2:15	**Presentation: Trends and potential impacts of entanglement on right whales** **Objective:** Familiarize working group members with trends and possible impacts of entanglement of right **Presenter:** Lisa Conger, New England Aquarium
2:15-2:30	Break
2:30-3:00	**Presentation: Spatial distribution of fixed fishing gear and baleen whales** **Objective**: Identify areas that might be at increased risk for interaction between baleen whales and fixed fishing gear **Presenter**: David Wiley, SBNMS
3:00-4:00	•**Round Table Discussion** **Objective:** Identify areas of agreement and recommendations for the SAC **Discussion Leaders:** R. Asmutis & D. Wiley
4:00-4:30	•**Next Steps** - Meeting Schedule - Agenda for Meeting #2